

1. Process for coding video images, said process comprising:

- a step of extraction (1) of at least one video object from an image originating from a sequence of images, by the construction of a segmentation key defining the contours of the object in the image,
- a step of coding (2) the video object according to the MPEG 2 standard so as to form an elementary stream (ES),
- a step of coding (3) the segmentation key relating to the video object, according to the MPEG 2 standard, so as to form an elementary stream,
- a step of coding (5) a background image into which the object is to be inserted, according to the MPEG 2 standard, so as to form an elementary stream,
- a step of multiplexing (4, 6, 7) the elementary streams relating to one or more objects and to the background image so as to provide a programme stream (PS) or transport stream (TS) according to the MPEG 2 standard.

25 2. Process according to Claim 1, said process comprising an additional step of calculating a depth map defining the relative positioning of the video objects in terms of depth, wherein said depth map is coded according to the MPEG 2 standard so as to provide an elementary stream multiplexed with the other elementary streams so as to be transmitted in the data transport stream.

30 3. Process according to Claim 2, wherein said depth map is obtained from information originating from a camera providing video images to be coded.

35 4. Process according to Claim 1, wherein said coding of the video object is performed by coding the complete image, using only the DC coefficients for the coding of parts of the image other than the object.

5. Process according to Claim 1, wherein said coding of the video object is performed by coding the complete image, the coding mode for coding the background of the complete image being forced in such a  
5 way as to reduce the number of coding bits.

6. Process according to Claim 5, wherein, in the case of a uniform background, said coding mode for coding the background uses only the DC coefficients.

7. Process according to Claim 5, wherein  
10 macroblocks relating to the background of the image are detected on the basis of the segmentation key and wherein the "skipped macroblocks" mode of the MPEG 2 standard is forced for the coding of the temporally stationary macroblocks.

15 8. Process according to Claim 5, wherein macroblocks relating to the background of the image are detected on the basis of the segmentation key and wherein the predictive modes of the MPEG 2 standard are used for the coding of the temporally mobile  
20 macroblocks, by forcing the motion vectors to the same value and the prediction residual to zero.

9. Coding device for implementing the process according to Claim 1, said device comprising an object extraction circuit (1) for providing a segmentation key  
25 defining the borders of the object, a circuit for MPEG coding (3) of the texture of the video object, a circuit for MPEG coding of the segmentation key (2), a circuit for MPEG coding of a background image (5) so as to provide elementary streams, at least one circuit (4,  
30 6, 7) for multiplexing the elementary streams so as to provide a programme stream (PS) or transport stream (TS).

10. Program stream (PS) or transport stream (TS)  
according to the MPEG 2 standard, such stream  
35 comprising an elementary stream (ES) for the coding of a video object, an elementary stream for the coding of a background image, an elementary stream for the coding of a segmentation key defining this video object.